

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT****STATIONARY SOURCE COMPLIANCE DIVISION****APPLICATION PROCESSING AND CALCULATIONS**

PAGES

3

PAGE

1

APPL. NO.

494845

DATE

5/20/2011

PROCESSED BY

Thomas Lee

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BY

RULE 1472 COMPLIANCE PLAN EVALUATION**COMPANY NAME:** Tesoro Refining and Marketing Company**MAILING ADDRESS:** P.O. Box 817
Wilmington, CA 90744**EQUIPMENT LOCATIONS:** **Los Angeles Refinery**
2101 E. Pacific Coast Highway
Wilmington, CA 90744
Facility ID: 800436**EQUIPMENT DESCRIPTION**

Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines

BACKGROUND

Tesoro submitted the enclosed compliance plan under A/N 494845 on December 31, 2008 to comply with the requirements of Rule 1472 (d)(3). Table A in the plan submittal lists all the emergency standby diesel-fueled stationary IC engines at the facility. Of the twelve engines listed in the plan submittal, the following four are affected engines under Rule 1472:

Table 1 – Affected R1472 IC Engines at Tesoro LAR

Engine Device ID	A/N / Permit no.	BHP	PM Emission Factor*, g/bhp-hr	Average Annual Operating Hours**	Duty	Within 150 meters?
D714	470225/F99906	55	0.84	20	Emergency Generator	Y
D1100	484957/F98755	435	0.8	20	Emergency Air	Y
D1101	484958/F98756	435	0.5	20	Emergency Air	Y
D1102	484959/F98757	435	0.8	20	Emergency Air	Y

*For D714, the PM emission factor [see Attachment 1] is the default emission factor from CARB's off-road mobile source emissions inventory model allowed by R1472(d)(3)(C)(v). For D1100-01, the PM emission factors are from permit application files [see Attachment 1]. For D1102, the PM emission factor in the plan submittal (0.8 g/bhp-hr) could not be verified in application files (no records) and is conservatively presumed to be accurate based on the PM emission factor for D1103 [which is identical to D1102 with same engine manufacturer, model number, year and bhp] [See Attachment 2].

**Based on maximum hours allowed for T&M by Rule 1470(c)(3)(C)(i)(I) since Tesoro has no records to substantiate actual T&M hours. This limit will be incorporated in the permit as part of Rule 1470 compliance plan approval under A/N 484274 and reflected in the subsequent revision of the TV permit.

PLAN EVALUATION

Rule 1472 requires a plan submittal for any facility with 3 or more emergency standby diesel engines greater than 50 bhp, unless an Initial Notification of Exemption is filed. The plan submittal deadline is



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PAGES

3

PAGE

2

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dependent on the number of engines at the site and the type of facility. Compliance dates are specified in Table 3 of Rule 1472. For this facility, the plan submittal deadline is January 1, 2009 and Tesoro submitted their plan within the required timeframe. The facility also submitted all the necessary plan information which contained of following:

- | | |
|-----------------------------------|--|
| ✓ Permit No. | ✓ Date of Manufacture |
| ✓ HP rating | ✓ Engine Service |
| ✓ PM Emission Factor | ✓ Supporting documentation for PM factor |
| ✓ Annual Operating Hours | ✓ Plot Plan |
| ✓ Identification of Engine Groups | ✓ Identification of Nearest Receptors |
| ✓ Engine Group Index Calculation | |

Engine Group Index Calculation

Residential Index

$$= \sum_i (PM \text{ Emission Factor} \times \text{Annual Operating Hours} \times \text{Distance Factor})$$

Commercial Index

$$= \sum_i (PM \text{ Emission Factor} \times \text{Annual Operating Hours} \times \text{Distance Factor}) 0.2$$

Where:

Distance Factor = Factor from Rule 1472, Table 2 corresponding to the HP Rating and Distance to the nearest receptor.

Based on the information submitted by Tesoro, there is only one 'Engine Group' at this facility. The Engine Group Index is calculated from the following data.


Table 2 – Engine Group Index

Residential Engine Index

Engine	HP Rating	Distance to Receptor, m	Distance Factor	PM Factor, g/bhp-hr	Hours	Index Value
D714	55	270	0.0005	0.84	20	0.0084
D1100	435	270	0.0028	0.8	20	0.0448
D1101	435	270	0.0028	0.5	20	0.0280
D1102	435	270	0.0028	0.8	20	0.0448
						$\Sigma = 0.126$

Commercial Engine Index

Engine	HP Rating	Distance to Receptor, m	Distance Factor	PM Factor, g/bhp-hr	Hours	Index Value
D714	55	100	0.0019	0.84	20	0.006384
D1100	435	100	0.0104	0.8	20	0.03328
D1101	435	100	0.0104	0.5	20	0.0208
D1102	435	100	0.0104	0.8	20	0.03328
						$\Sigma = 0.0937$

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 3	PAGE 3
	APPL. NO. 494845	DATE 5/20/2011
	PROCESSED BY Thomas Lee	CHECKED BY

Since the Index values are less than 1, subparagraph (f) of Rule 1472 is not applicable to this facility and no further action is necessary.

REG XXX

The Tesoro Los Angeles Refinery is designated as a Title V facility. The initial Title V permit was issued on November 23, 2009. The issuance of this compliance plan in Section I of the Facility Title V permit will be made as a 'Minor' TV permit revision. Pursuant to Rule 3003(j), public notice is not required but a copy of the proposed Section I revision, compliance plan and this evaluation report will be submitted to EPA for a 45-day review.

RECOMMENDATION

It is recommended that Tesoro's Rule 1472 Compliance Plan be approved.